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(54) POLYPEPTIDE

(57)Abstract:

NEW MATERIAL: A polypeptide having a sequence wherein 29th Gly is replaced with another amino acid or is deficient in the amino acid sequence from 1st Ser to 155th Leu shown by the formula.

USE: An antitumor agent.

PREPARATION: For example, a gene encoding an amino acid sequence of human tumor necrosis factor(TNF) is cleft with a restriction enzyme to prepare a DNA fragment encoding an amino acid sequence of 1st Ser to 155th Leu shown by the formula, which is subjected to gene conversion in combination with digestion with a restriction enzyme and connection with T4DNA ligase to give a converted material wherein 29th Gly is replaced with another amino acid or is deficient. The converted material is linked to a manifestation vector, Escherichia coli is transformed with the vector and the converted material is cultured to give a polypeptide of human TNF converted material.

Ser Ser Ser Arg Thr Pro Ser Asp Lys Pro Gln Ala His Val Phe
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Ala Asp Pro Gln His Cys Gly Cys Met Val Thr Leu Asp Arg Arg
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Ala Asp Arg Leu Leu Ala Phe Cys Val Cys Leu Arg Arg Asp Ala Gln
31 32 33 34 35 36 37 38 39 40 41 42 43 44 45
Leu Val Val Pro Ser Gln Gly Leu Tyr Leu Ile Tyr Ser Gln Val
46 47 48 49 50 51 52 53 54 55 56 57 58 59 60
Gln Phe Lys Gly Gln Gly Asp Pro Ser Thr His Val Leu Leu Tyr
61 62 63 64 65 66 67 68 69 70 71 72 73 74 75
Ser Thr Cys Met Arg His Ala Val Ser Tyr Gln Thr Leu Val Arg
76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Leu Leu Ser Ala Ile Leu Ser Pro Gln Gln Arg Gln Thr Phe Gly
91 92 93 94 95 96 97 98 99 100 101 102 103 104 105
Gly Ala Gln Ala Lys Pro Thr Thr Gln Pro Ile Tyr Leu Gly Gly
106 107 108 109 110 111 112 113 114 115 116 117 118 119 120
Val Phe Val Leu Gln Lys Gly Asp Arg Lys Ser Ala Gln His Arg
121 122 123 124 125 126 127 128 129 130 131 132 133 134 135
Arg Pro Asp Tyr Lys Asp Phe Ala Gly Ser Gly Gln Val Tyr Phe
136 137 138 139 140 141 142 143 144 145 146 147 148 149 150
Gly Cys His Ala Leu
151 152 153 154 155

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